Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

CW#31: Perimeter and Area A

Geometry

October 26th, 2015

|  |  |
| --- | --- |
| 1. In your notes define:  (a) Perimeter  (b) Area | 2. In your notes give an example of units for:  (a) Perimeter  (b) Area |
| 3. A rectangular window has a perimeter of 1500cm. One side measures 500cm.  (a) What do you know about rectangles?  (b) Draw a picture using the given information.  (c) What are the measures of the remaining three sides? Explain how you knew. | 4. A rectangular piece of cardboard has a length of 16 inches and an area of 192 square inches.  (a) Draw a picture using the given information.  (b) How do you find the area of a rectangle?  (c) What is the width of the cardboard? Explain how you determined the width. |
| 5. If the perimeter of a rectangle is 25 inches and the length is 8 inches.  (a) Draw a picture using the given information.  (b) Find the width of the rectangle. | 6. If the area of a rectangle is 365.2 square meters, and it’s length is 22 meters.  (a) Draw a picture.  (b) Find the width of the rectangle. |
| 7. In the square to the right, 1 ft by 1 ft corners have been cut out.  (a) What is the area of the cutouts?  (b) What is true about a square?  (c) Label the missing sides in the picture.  (d) Find the perimeter of the shape. Show your work | (e) Find the area of the remaining figure.  3  1 |

|  |  |
| --- | --- |
| 8. (a) What do the tick marks mean?  (b) Label the lengths of the missing sides.  (c) Draw in lines to break the shape into rectangles.  (b) Determine the area of the figure. How can you use the lines you drew in to help you? | 9. (a) How do you find perimeter?  (b) Label the lengths of the missing sides..  (c) Find the perimeter of the figure below: |
| 10. If the area of a square is 36 in2, what is its perimeter? (a) What information do you need to find the perimeter? (b) How can you figure that out from the area? | 11. Linoleum floor tiles are each 1-foot square. What is the minimum number of these tiles needed to tile the entire floor of a 12-foot-by-14-foot rectangular kitchen and a 12-foot-by-4-foot rectangular hallway? |
| 12. A room is 15.5 feet by 10 feet long.   1. If carpet pieces are 1-foot squares, how many square feet of carpet is needed to cover the entire room? 2. If carpet costs $2.25 per square foot. How much does it cost to carpet the room? | |
| 13. (a) What is the area of the rectangle below? Leave your answer in terms of x.  (b) What is the perimeter? Leave your answer in terms of x. | 14. (a) What is the area of the rectangle below leave your answer in terms of x.  (b) What is the perimeter? Leave your answer in terms of x. |
| 15. A 6ft by 8ft rectangular floor is to be covered with tiles. In each of the four corners will be placed one patterned 2ft by 2ft tile. The remaining part of the floor is to be covered with solid white 1ft by 1ft tiles. How many of the solid white tiles will be needed to cover the remaining portion of the floor? | 16. If a rectangle has a width of 24 feet and a perimeter of 120 feet, what is its area? |
| 17. The city of Chicago is painting the perimeter of football fields across the city. Each field is 100 yards long and 60 yards wide. If there are 8 fields that need painting, how much total yards will be painted? | 18. If a rectangle has a length of 32 meters, and an area of 384 square meters, what is the rectangle’s perimeter? |

|  |  |
| --- | --- |
| 15. A 6ft by 8ft rectangular floor is to be covered with tiles. In each of the four corners will be placed one patterned 2ft by 2ft tile. The remaining part of the floor is to be covered with solid white 1ft by 1ft tiles. How many of the solid white tiles will be needed to cover the remaining portion of the floor? | 16. If a rectangle has a width of 24 feet and a perimeter of 120 feet, what is its area? |
| 17. The city of Chicago is painting the perimeter of football fields across the city. Each field is 100 yards long and 60 yards wide. If there are 8 fields that need painting, how much total yards will be painted? | 18. If a rectangle has a length of 32 meters, and an area of 384 square meters, what is the rectangle’s perimeter? |